CLAIMS

1. A pilot operated demand valve for supplying breathable gas from a gas supply to a breathing apparatus comprising

a body having a connection adapted to be connected to a facepiece, hood or helmet of the breathing apparatus,

main valve means responsive to pressure within a chamber in the body for selectively supplying gas from said gas supply to said connection,

pilot valve means for regulating the exit of gas from the chamber, the pilot valve means comprising,

a pilot jet having a predetermined jet area formed in a planar surface of the body,

an operating lever having a projection with an area larger than the jet area, the lever pivotally engaging said surface along a line spaced from said jet for pivoting movement to and from a closed position in which the control projection overlies and closes the jet, and

resilient spring means urging the lever toward the closed position.

2. A pilot operated demand valve according to claim 1 wherein the lever comprises first and second projections spaced from said control projection for engaging said planar surface.

3. A pilot operated demand valve according to claim 1 wherein the lever comprises an elongated ridge for engaging said planar surface, the ridge extending substantially tangentially to said control projection and spaced therefrom.

4. A pilot operated demand valve according to claim 1 wherein the resilient spring means comprises a spring of generally "U" shape having a central portion engageable with the lever and end portions mountable to said body.

5. A pilot operated demand valve according to claim 4 wherein the lever comprises a transverse groove to receive the central portion of the spring.

6. A pilot operated demand valve according to claim 5 wherein the groove has a central embossment on the longitudinal centerline of the lever to engage the central portion of the spring with point contact.

7. A pilot operated demand valve according to claim 1 wherein the pilot jet is surrounded by a land surface within a recess formed in said planar surface of the body, the land surface being level with said planar surface of the body.

8. A pilot operated demand valve according to claim 7 wherein the land surface and the control projection are circular in outline.

9. A pilot operated demand valve according to claim 7 wherein the area of the control projection is greater than the area of the land surface.

10. A bypass arrangement for a demand valve for a breathing apparatus having an inlet port for receiving a pressurized gas and an outlet port for supplying gas to a facepiece comprising

a cylindrical bore in a body of the demand valve,

a recess eccentrically positioned in an end face of the cylindrical bore,

a resilient annular seal housed in said recess,

a port at the base of the recess communicating with the outlet port of the demand valve,

a further port communicating between the cylindrical bore and the inlet port of the demand valve,

a rotatable plug receivable in said cylindrical bore for rotation between a first rotary position and a second rotary position relative to said cylindrical bore, said plug having at one end a knob for rotation of the plug and having at its other end an eccentric bore,

a spring loaded plunger mounted in said eccentric bore and having an end face adapted to bear against said resilient annular seal to seal the recess when the plug is in said first rotary position, and

rotation of the plug to said second rotary position moving the plunger across the resilient annular seal to provide fluid communication between the inlet port and the outlet port of the demand valve.

11. A bypass arrangement for a demand valve according to

claim 10 wherein cooperating abutment surfaces are provided on the plug and the demand valve body to limit the relative rotation of the plug and the demand valve body.